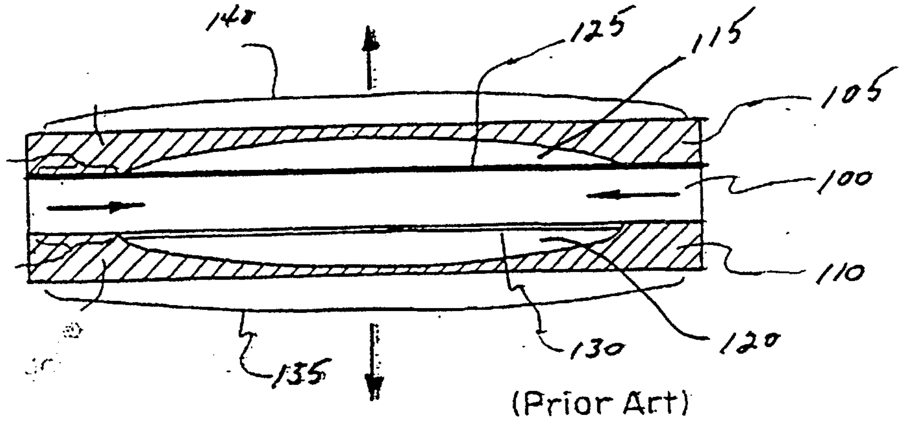

(Prior Art)

FIGURE 1

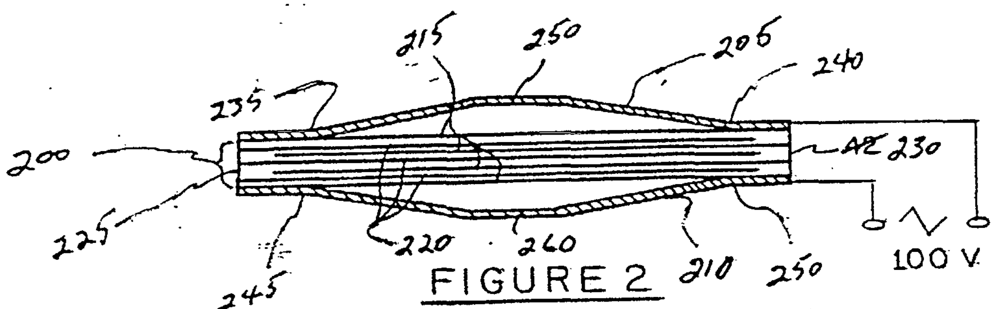

FIGURE 2

(Prior Art)

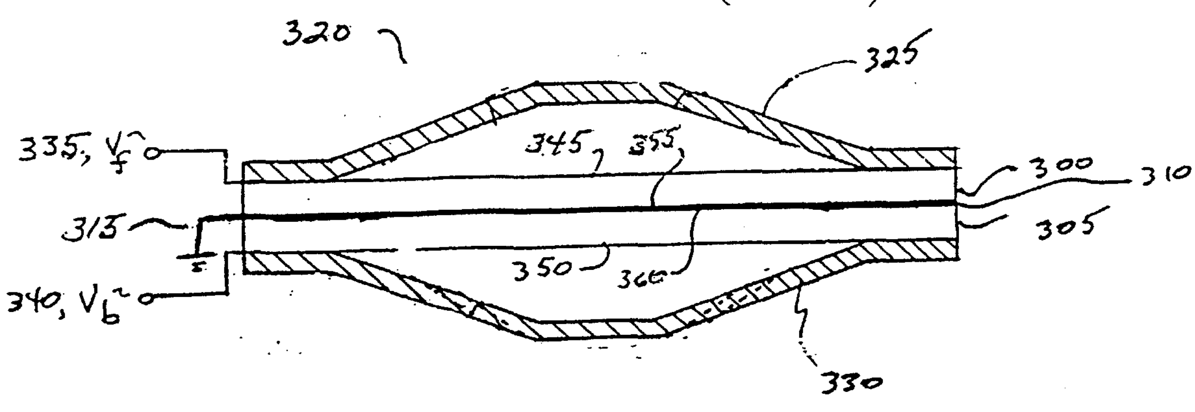

FIGURE 3

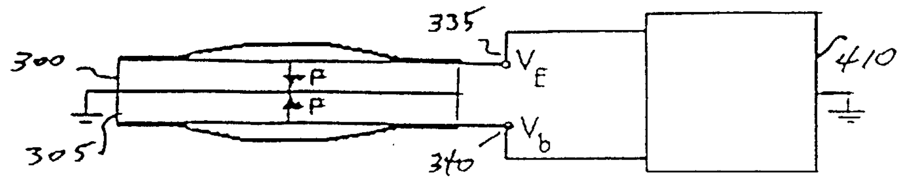

FIG. 4A Monopole (in phase, same amplitude), $V_b = V_f = V_m$, $\varphi = 0$

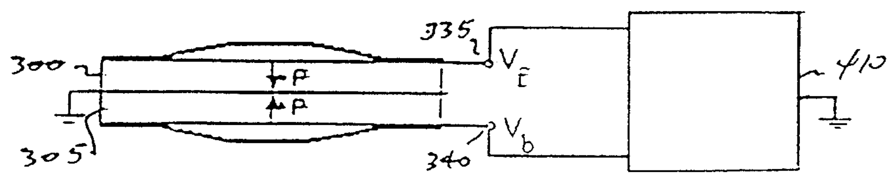

FIG. 4B Dipole (out of phase, same amplitude), $V_b = -V_d$, $V_f = V_d$, $\varphi = \pi$

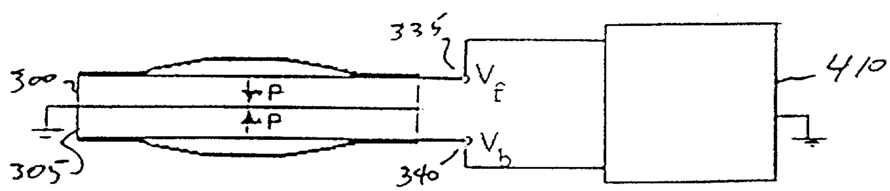

FIG. 4C Cardioid, $V_b / V_f = (1-R) / (1+R)$, where $R = TVR_m / TVR_d$, $0 < \varphi < \pi$

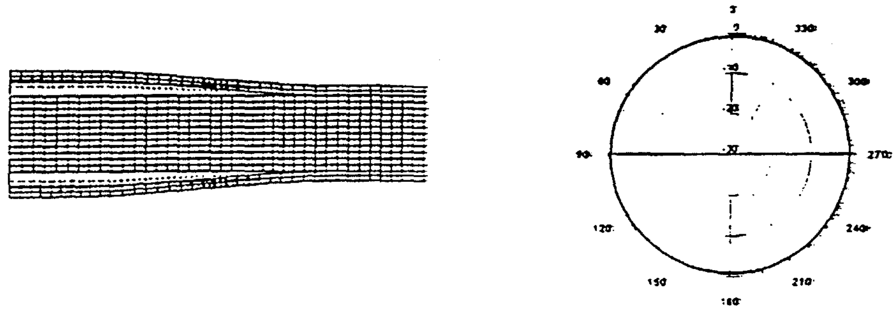

FIG. 5A: Monopole mode

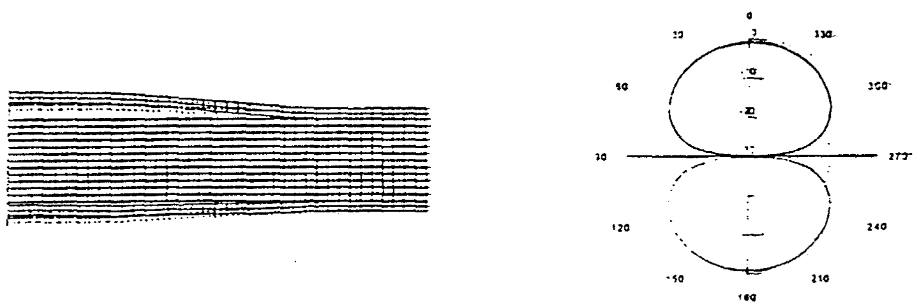

FIG. 5B dipole mode

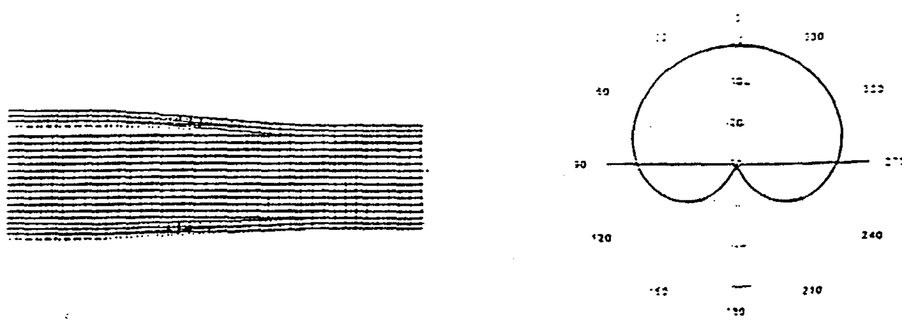

FIG. 5C cardioid mode. $V_b : V_f = (1-R)/(1+R)$. where $R = TVR_m : TVR_d$

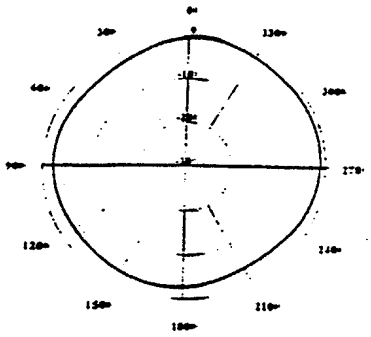

FIGURE 6A

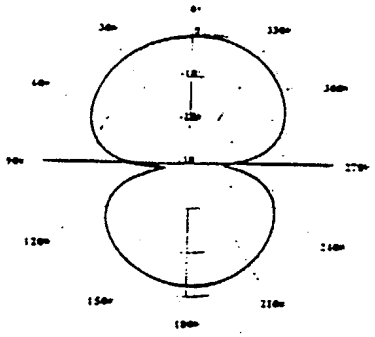

FIGURE 6B

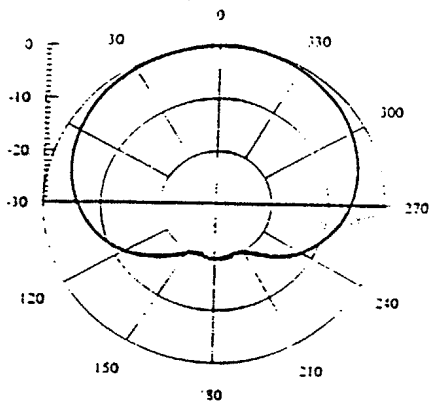

FIG. 7A

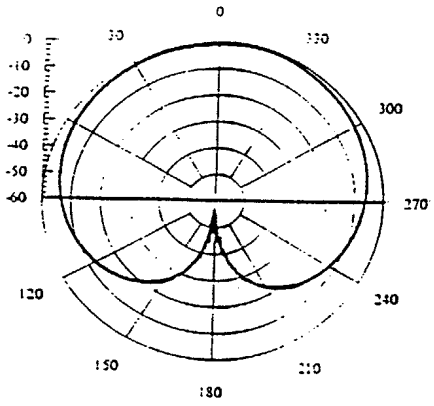

FIG. 7B

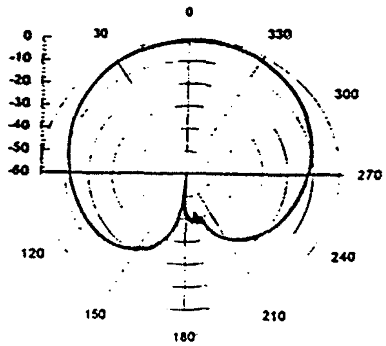

FIGURE 8A Vf =100 V, V_b = 55 V, φ =237 °

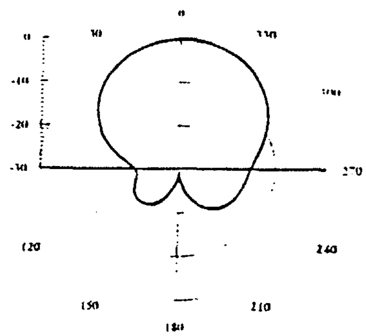

FIGURE 8B 20kHz. V_f =100 V. V_b = 38 V. φ =268 °

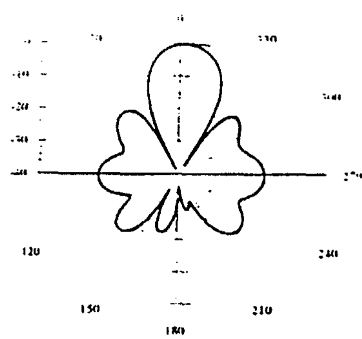

FIGURE 8C 80kHz. V_f =98 V. V_b = 100 V. φ =332 °

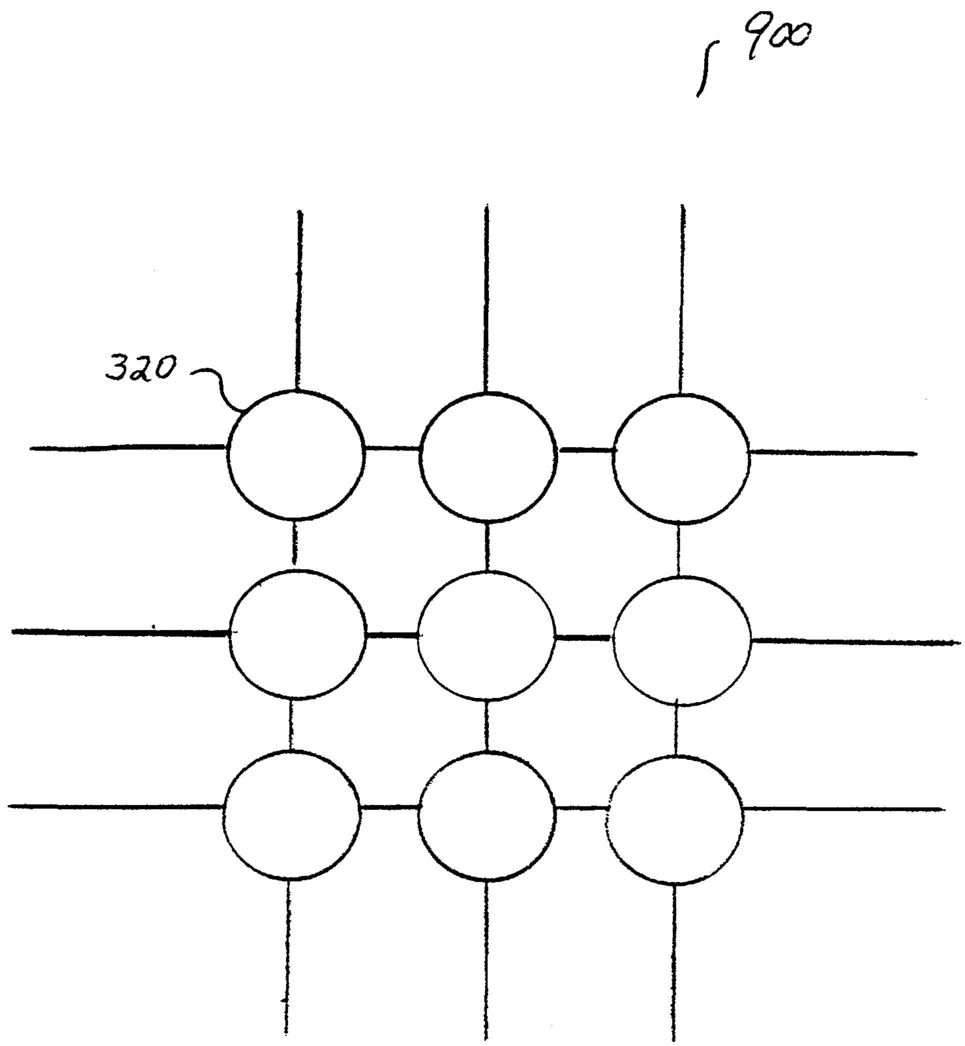

FIG. 9